

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-31 (cancelled)

32. (Currently Amended) A method, comprising administering to an animal between 1 hour and 28 days of age, an amount of a mycobacterial cell wall extract, wherein the amount is effective to activate the immune system of the animal ~~or to enhance production performance of the animal.~~

33. (Previously Presented) The method of Claim 32, wherein the administration to the animal occurs between 1 hour and 4 days of age.

34. (Previously Presented) The method of Claim 32, wherein the administration to the animal occurs between 1 hour and 24 hours of age.

35. (Previously Presented) The method of Claim 32, wherein the mycobacterial cell wall extract is prepared from family *Mycobacteriaceae*, genus *Mycobacterium*, or species *Mycobacterium phlei*.

36. (Previously Presented) The method of Claim 32, wherein activation of the immune system comprises activation of white blood cells.

37. (Previously Presented) The method of Claim 36, wherein the white blood cells are group T-lymphocytes or monocytes.

38. (Previously Presented) The method of Claim 37, wherein the T-lymphocytes are CD4<sup>+</sup> T lymphocytes.

39. (Previously Presented) The method of Claim 38, wherein the CD4<sup>+</sup> T lymphocytes are CD25<sup>+</sup>CD4<sup>+</sup> T lymphocytes or MHC Class II<sup>+</sup>CD4<sup>+</sup> T lymphocytes.

40. (Previously Presented) The method of Claim 37, wherein the monocytes are MHC Class II<sup>+</sup> monocytes.

41. (Previously Presented) The method of Claim 36, wherein the activated white blood cells display enhanced production of IFN- $\gamma$  in response to a stimulus.

42. (Cancel) The method of Claim 32, wherein the enhancement of production performance is an increase in the average daily weight gain of the animal or an increase in efficiency of feed use.

43. (Cancel) The method of Claim 32, wherein the enhancement of production performance is a decrease in the mortality of the animal, a decrease in the number of treatment days necessary to maintain the health of the animal, a decrease in the cost of treatment necessary to maintain the health of the animal, or any combination thereof.

44. (Previously Presented) The method of Claim 32, wherein the animal is a mammal, bird, fish, amphibian or crustacean.

45. (Previously Presented) The method of Claim 32, wherein the animal is domestic food animal.

46. (Previously Presented) The method of Claim 45, wherein the domestic food animal is a calf, a chick, a piglet, a kid, a fawn or a lamb.

47. (Previously Presented) The method of Claim 45, wherein the domestic food animal is a calf of a domestic cow.

48. (Previously Presented) The method of Claim 45, wherein the domestic food animal is a chick of a domestic fowl.

49. (Previously Presented) The method of Claim 32, wherein the mycobacterial cell wall extract is combined with a pharmaceutically acceptable carrier.

50. (Previously Presented) The method of Claim 32, wherein the administration is subcutaneous, intravenous, intramuscular, intraperitoneal or oral.

51. (Previously Presented) The method of Claim 32, wherein the amount of the mycobacterial cell wall extract administered to the animal is from about 0.001  $\mu\text{g}$  per kg to about 600  $\mu\text{g}$  per kg per dose.

52. (Previously Presented) The method of Claim 32, wherein the amount of the mycobacterial cell wall extract administered to the animal is from about 0.01  $\mu\text{g}$  per kg to about 400  $\mu\text{g}$  per kg per dose.

53. (Previously Presented) The method of Claim 32, wherein the amount of the mycobacterial cell wall extract administered to the animal is from about 0.1  $\mu\text{g}$  per kg to about 200  $\mu\text{g}$  per kg per dose.

54. (New) A method, comprising administering to an animal between 1 hour and 28 days of age, an amount of a mycobacterial cell wall extract, wherein the amount is effective to enhance production performance of the animal.

55. (New) The method of Claim 54, wherein the administration to the animal occurs between 1 hour and 4 days of age.

56. (New) The method of Claim 54, wherein the administration to the animal occurs between 1 hour and 24 hours of age.

57. (New) The method of Claim 54, wherein the mycobacterial cell wall extract is prepared from family *Mycobacteriaceae*, genus *Mycobacterium*, or species *Mycobacterium phlei*.

58. (New) The method of Claim 54, wherein the enhancement of production performance is an increase in the average daily weight gain of the animal or an increase in efficiency of feed use.

59. (New) The method of Claim 54, wherein the enhancement of production performance is a decrease in the mortality of the animal, a decrease in the number of treatment days necessary to maintain the health of the animal, a decrease in the cost of treatment necessary to maintain the health of the animal, or any combination thereof.

60. (New) The method of Claim 54, wherein the animal is a mammal, bird, fish, amphibian or crustacean.

61. (New) The method of Claim 54, wherein the animal is domestic food animal.

62. (New) The method of Claim 61, wherein the domestic food animal is a calf, a chick, a piglet, a kid, a fawn or a lamb.

63. (New) The method of Claim 61, wherein the domestic food animal is a calf of a domestic cow.

64. (New) The method of Claim 61, wherein the domestic food animal is a chick of a domestic fowl.

65. (New) The method of Claim 54, wherein the mycobacterial cell wall extract is combined with a pharmaceutically acceptable carrier.

66. (New) The method of Claim 54, wherein the administration is subcutaneous, intravenous, intramuscular, intraperitoneal or oral.

67. (New) The method of Claim 54, wherein the amount of the mycobacterial cell wall extract administered to the animal is from about 0.001  $\mu\text{g}$  per kg to about 600  $\mu\text{g}$  per kg per dose.

68. (New) The method of Claim 54, wherein the amount of the mycobacterial cell wall extract administered to the animal is from about 0.01  $\mu\text{g}$  per kg to about 400  $\mu\text{g}$  per kg per dose.

69. (New) The method of Claim 54, wherein the amount of the mycobacterial cell wall extract administered to the animal is from about 0.1  $\mu\text{g}$  per kg to about 200  $\mu\text{g}$  per kg per dose.